

## BM 5A



Users manual




# IMPORTANT SAFETY INSTRUCTIONS



The lightning flash with an arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

- 1 Read these instructions.
- 2 Keep these instructions.
- 3 Heed all warnings.
- 4 Follow all instructions.
- 5 Do not use this apparatus near water.
- 6 Clean only with dry cloth.
- 7 Install in accordance with the manufacturer's instructions.
- 8 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11 Only use attachments/accessories specified by the manufacturer.
- 12  Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13 Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

## Warning!

- To reduce the risk of fire or electrical shock, do not expose this equipment to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the equipment.
- This apparatus must be earthed.
- Use a three wire grounding type line cord like the one supplied with the product.
- Be advised that different operating voltages require the use of different types of line cord and attachment plugs.
- Always observe the local safety regulations. Ensure that the factory-set power requirements for the device (refer to the label on the back of the monitor) corresponds to the mains supply in your region.
- This equipment should be installed near the socket outlet and disconnection of the device should be easily accessible.
- To completely disconnect from AC mains, disconnect the power supply cord from the AC receptable.
- The mains plug of the power supply shall remain readily operable.
- Do not install in a confined space.
- Do not open the unit - risk of electric shock inside.

## Caution:

You are cautioned that any change or modifications not expressly approved in this manual could void your authority to operate this equipment.

## Service

- There are no user-serviceable parts inside.
- All service must be performed by qualified personnel.



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# INTRODUCTION

**Congratulations** on your purchase of the Dynaudio Acoustics BM 5A active monitor system. With the right care and attention it will provide many years of excellent and trouble free audio reproduction. It is most important, however, that you take a few minutes at this early stage of your BM 5A's life, to read this manual. It contains essential information to make you get the best from your new monitors.

## **Break-In time**

The transducers of your BM 5A monitor will achieve better sound quality after breaking in. Especially after the first hours of use, you may notice a significant advance in sound quality. Still after first few hours improvement take place, but lesser noticeable.

*The latest manual revision is always available at our website:  
[www.dynaudioacoustics.com](http://www.dynaudioacoustics.com)*

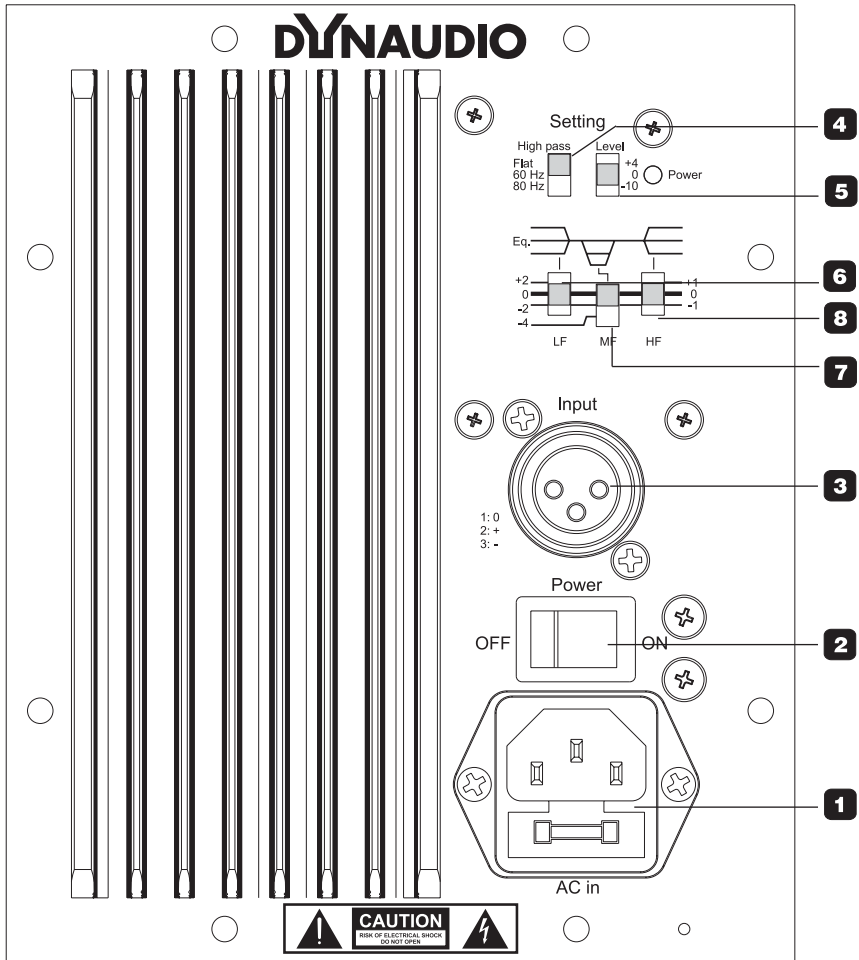
*For support please also refer to: [www.dynaudioacoustics.com](http://www.dynaudioacoustics.com)*

Please enjoy

**dynaudioacoustics**  
IF IT'S THERE - YOU'LL KNOW IT

# OVERVIEW - REAR PANEL

Correct setup and connections is essential to achieve optimal performance from your monitors. Please follow the instructions on the following pages.



1. AC power Input and fuse

2. Power On/Off switch

3. Balanced analog Input

4. High Pass filter switch

5. Level trim

6. LF - Low filter setting

7. MF - Mid filter setting

8. HF - Hi filter setting

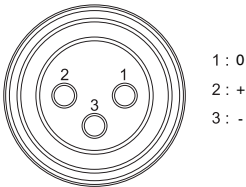
# SETTING UP

## 1/2. Power On/Off switch/AC Power In

Before switching on, make sure Mains Voltage matches your areas Mains Voltage specification. Replace fuse only with the fuse-type marked on the rear-panel label.

## 3. Balanced analog Input

Audio Input is via a female XLR connector. The Input is electronically balanced with following connections. The connections are printed on the rear for easy reference.



If your signal source is unbalanced, usually the unused pin is connected to ground. This is normally done inside the connecting cable. Special adaptors (not supplied) can be bought that converts xlr input to single ended RCA type input. For best result use only good quality screened cables and connectors.

## Switches

On the rear of the monitor you will find 5 switches for setting up the monitor for optimum performance in different acoustic environments. Each switch is explained in the following.

### 4. High Pass filter switch

This switch sets the lower cut-off frequency of the monitor. It is used to match the monitor to a subwoofer. You can select between 60Hz or 80Hz X-over. Flat is used in case you do not use a subwoofer to assist your monitors. When used with a subwoofer it is recommended to use either 60Hz or 80Hz filter, thus allowing a higher undistorted soundpressure level.

### 5. Level trim

Use this switch to match the sensitivity of the BM 5A monitor to your source.

#### High-output source

If your source has a high Output, set the switch to the -10 position to reduce the sensitivity by 10dB.

#### Low-output source

If your source has low output, set to +4 position to gain 4dB more sensitivity.

### 6. LF

This switch controls the bass gain level using shelf-type EQ. The level can be set to +2dB, 0dB or -2dB.

This filter is used to adjust for the proximity of boundaries, so if positioned close to wall or corner, use the -2dB setting. If positioned far from walls use the +2dB or 0 position, depending on other equipment, and personal taste.

### 7. MF

This switch sets a notch filter, used to compensate for the acoustic effect of a console. Such placement usually results in a response peak in lower midrange. The MF switch activates a bell shaped notch filter, which can compensate. Use either the -2 or the -4dB setting. You may experiment finding the setting, which provides the flattest response.

### 8. HF

This switch controls the Treble level and it is used to match the high end of the monitor to your other electronic equipment, and your acoustical environment. Use the setting providing the preferred timbre. If the sound is too bright; try to set to -1dB to reduce treble by 1dB. If too dull sound, use +1dB setting to raise the treble by 1dB.



# INDICATORS & POSITIONING

## Indicators

On the front you will find 2 diodes. These are positioned just above the Dynaudio Logo.



- 1** The green power diode indicates speaker on/off status. Green indicates; “power on”.
- 2** The second diode has two functions. This will light up orange when the input signal reaches a level where the limiter is activated to prevent the internal bass amplifier from clipping. And it will light up red when the amplifier gets too hot. At the same time the monitor will be muted, in order to reduce the temperature.

## Protection

The BM 5A monitor has several built in protection systems to reduce the risk of hazard or damage due to overloading. Both power amplifiers have thermal protection. This activates if a problem should occur, and helps protect both the electronics and the loudspeaker drivers.

There is also a thermal sensor measuring the temperature on the heat sink. An electronic circuit will mute the signal when too high temperature is reached. The protection diode on the front will light up when this happens.

On the tweeter output there is an overload protection to prevent burning the tweeter driver in case of overloading. This circuit will mute the tweeter signal if too much current is fed to the tweeter.

The woofer channel has a built in limiter that protects the woofer unit from too much excursion. It works by reducing the gain of the circuit when a certain threshold level is reached.

## Positioning

The BM 5A is designed as a near to mid-field monitor and can be equally well used in both stereo and surround setups. Optimal performance is achieved when positioned 1-3 meters from the listener. It can be placed on stands or on the meter bridge of a console provided that the meter bridge is sufficiently sturdy. For best results the speakers may be aimed towards the listener in both vertical and horizontal planes.

### Note:

*Be aware that proper air circulation around the monitor for sufficient cooling is necessary. Also notice that the heat sink is designed to provide maximum cooling when the monitor is positioned vertically.*

# MISCELLANEOUS

## Troubleshooting

If Power LED lights green and no sound, check your input signal f.ex. by switching speakers.

If power LED does not light at all and no sound, check the fuse. If replaced and still no sound contact your Dynaudio Acoustics Dealer.

If protection LED lights red check the temperature of the heat sink. If it feels hot turn off the speaker and wait for some 10 minutes to allow the amplifier to cool off. Turn it on again. If it works now it is ok, but you may need more air circulation around your speaker to avoid overheating to take place again.

## Care

Components of the highest quality is used in your BM 5A. This assures years of trouble free operation. Following precautions should still be made though.

Avoid running the system into severe clipping. Even there is an advanced protection system, you may be able to destroy your speakers by severe overpowering. The limiter works over a certain range, but exceeding this level may send a severely clipped signal to your drivers. When a noticeable distortion occurs, please turn down the level to your speakers.

Avoid hot plugging the equipment connected to the monitors. Always turn off the speaker and other equipment when plugging or unplugging signals, or switching equipment on or off. Do not touch the drive units by hand. The tweeter especially uses a very fine fabric dome with a ultra thin coating.

## Options

The BM 5A may be combined with a Dynaudio Acoustics subwoofer for extended bass performance, and higher spl if highpass filter is used. See Setting Up.

## Service

There are no user serviceable parts inside the monitor. If service is required please contact service via:

[www.tcsupport.tc](http://www.tcsupport.tc)

or

**TC Electronic**  
**Sindalsvej 34**  
**DK-8240 Risskov**  
**Denmark**

**Tel: +45 87427000**

# TECHNICAL SPECIFICATIONS

|                               |   |
|-------------------------------|---|
| System                        | Two-way Active Nearfield Monitor  |
| Frequency Response (+/- 3 dB) | 50 Hz - 21 kHz  |
| Input level for 85 dB SPL @1m | -16dBu RMS @ 0dB setting  |
| Power consumption             | Idle: 10 W / Max: 90 W  |
| Amplifier power               | Tweeter: 50 W / Woofer: 50 W  |
| Bass Principle                | Bass reflex   |
| Vent tuning frequency         | 55 Hz   |
| Internal Cabinet Volume       | 9 liters  |
| Crossover Frequency           | 1500 Hz   |
| Crossover Slope               | 6 dB/oct  |
| Tweeter                       | Esotec 28 mm/1.1" soft dome, rear chamber, Magnetic fluid. 4 mm alu front, pure alu wire voice coil |
| Woofer                        | 170 mm/6.5", One-piece thermo formed polyprop cone, 75 mm/3" pure alu voice coil                    |
| Weight                        | 8.7 kg / 19.2 lbs   |
| Dimensions (W x H x D)        | 186 x 320 x 320 mm / 7.3" x 12.5" x 12.5"   |